

REMARKS

Claims 1, 2, 4-11, 13-19, and 21-73 are pending in the above-identified application; of these, Claims 56-68 are withdrawn; 6, 22, and 43-50 are allowed; Claims 1, 2, 4, 5, 7-11, 13-19, 21, 23, 25-39, 41, 42, 51-55 and 69-73 are rejected; and Claims 24 and 40 are objected to. Applicants, having amended the application, respectfully request reconsideration.

Rejections Under 35 U.S.C. §112

The Examiner rejected Claim 51 under §112 as indefinite. In particular, the Examiner noted that Claim 51

recites that each arm of the first serpentine hinge is contoured to coincide with the shape of the outside periphery of the frame element. However, base claim 43 refers to three distinct frame elements so it is not clear which frame element claim 51 refers to.

(Office Action, page 2.) In response to the Examiner's keen observation, Claim 51 is amended to recite serpentine hinges with arms "contoured to coincide with the shape of the outside periphery of the first frame element..." (Claim 51, emphasis in original to highlight amendment). This amendment addresses the Examiner's concern, so the rejection of Claim 51 should be withdrawn.

Rejections Under 35 U.S.C. §102

The Examiner rejected claims 69-71 and 73 under §102(b) as anticipated by Plesko (US 5,506,394). Claim 69 is amended to include the language of now cancelled Claim 72, and is thus believed to distinguish Plesko for at least the same reasons former Claim 72 distinguished that reference. Claims 70, 71, and 73 depend from Claim 69, and consequently include the subject matter taken from cancelled Claim 72. The rejections of claims 69-71 and 73 should therefore be withdrawn.

Rejections under 35 U.S.C. §103

Claim 72

The Examiner rejected Claim 72 as being unpatentable over Plesko. Claim 72 is cancelled, the language of that claim being incorporated into base claim 69. The following remarks thus focus on amended claim 69.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings...The teaching or suggestion to make the claimed combination [must be] found in the prior art...

(MPEP §2142, emphasis added.)

With respect to the subject matter of claim 72 (now claim 69), the Examiner asserts that "it would have been obvious to a person having ordinary skill in the art to use any appropriate shape for the serpentine hinges" (Office Action, page 4). As for the requisite suggestion or motivation required to establish a *prima facie* case of obviousness, the Examiner recites:

one motivation for having the arms increase in length as they proceed from the support structure end to the optical element end is that this would require a shorter overall hinge length and would advantageously reduce the amount of material needed.

(*Ibid*). The Examiner does not however, explain how the suggested modification of Plesko would result in a shorter overall hinge length, and fails to point to anything in the prior art that teaches or suggests either the Examiner's suggested modification of Plesko or the stated motivation. The Examiner has therefore failed to establish a *prima facie* case of obviousness

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with respect to the subject matter of pending claim 69 (formerly claim 72). The rejection of Claim 69 should therefore be withdrawn.

Claims 1, 2, 4, 5, 7-11, 13-19, 21, 23, 25-39, 41, 42, and 52-55

The Examiner rejected claims 1, 2, 4, 5, 7-11, 13-19, 21, 23, 25-39, 41, 42, and 52-55 as unpatentable over Neukermans et al (US 6,445,844) in view of McClelland et al. (US 6,201,629). Applicants deal with each rejection in turn.

A. Claims 1, 2, 4, 5, and 7-11

Claim 1 is cancelled, rendering the rejection of that claim moot. Claims 2, 4, 5, 7, 8, and 10 are amended to depend from allowed Claim 6, and are consequently allowable for at least the same reasons as Claim 6. Claims 9 and 11 are cancelled, rendering the rejections of those claims moot.

B. Claims 13-15

Claims 13-15 are cancelled, rendering moot the rejections of those claims.

C. Claims 16-18

With respect to Claim 16, the Examiner notes that "the movable optical element may act as a blocker, by blocking beams propagating between input and output fibers" (Office Action, page 6). The Examiner does not, however, show anything in the cited references, or elsewhere in the prior art, in support of this suggestion to modify the systems described in the cited references. The Examiner has therefore failed to establish a *prima facie* case of obviousness against Claim 16. The rejection of Claim 16 should therefore be withdrawn.

Claims 17 and 18, as amended, depend from Claim 16, so the rejections of those claims should be withdrawn for at least the

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same reasons the rejection of Claim 16 should be withdrawn.

D. Claim 21

Claim 21 is cancelled, rendering moot the rejection of that claim.

E. Claim 23

Claim 23 is amended to depend from Claim 22, which the Examiner considers to be allowable. Claim 23 is therefore believed to be allowable for at least the same reasons that Claim 22 has been deemed allowable. The rejection of Claim 23 should therefore be withdrawn.

F. Claim 25

The Examiner rejected Claim 25, noting "each winding of the serpentine hinges gets progressively shorter from the optical element end to the support structure end" (Office Action, Page 7). The Examiner points to nothing, however, in the cited references that teaches such a hinge structure. The rejection of Claim 25 should therefore be withdrawn.

G. Claim 26

Claim 26 is amended and depends from Claim 24, which in turn has been amended to include the subject matter of its parent claims. The Examiner had objected to Claim 24 as being dependent upon a rejected base claim, but deemed Claim 24 allowable if amended to include the language of the base claim and any intervening claims. Claim 24 was so amended, and Claim 26 is amended to depend from Claim 24. Claim 26 is thus believed to be allowable for at least the same reasons that Claim 24 is allowable.

H. Claims 27, 28, 31, 33, 39, 41, and 42

Claim 27 is amended to include the language of cancelled Claim 32. Claim 27 is thus similar to Claim 16 in reciting a MEMS apparatus that includes a movable optical element "selected from a group consisting of filters, blockers, gratings, and lenses." As noted above in connection with the rejection of Claim 16, the Examiner has pointed to nothing in the cited references that suggests inclusion of the quoted element into the claimed apparatus. The rejection of Claim 27 should therefore be withdrawn.

Claims 28, 31, 33, 39, 41, and 42 depend from Claim 27, and consequently distinguish the prior art for at least the same reasons that Claim 27 distinguishes. The rejections of these claims should therefore be withdrawn.

I. Claims 52-55

Claims 52-55 are cancelled, rendering moot the rejection of those claims.

Allowed Claims

Claims 6, 22, and 43-50 are presently allowed (see Office Action, page 8).

Claim Objections

The examiner objected to claims 24 and 40 as being dependent on rejected base claims. Claims 24 and 40 are rewritten in independent form, including the limitations of any base and intervening claims, and are consequently allowable.

The examiner noted that claim 51 would be allowable if rewritten to overcome the §112 rejection: Claim 51 has been thus rewritten, and is consequently believed to be allowable.

CONCLUSIONS

In light of the foregoing remarks and amendments, the pending claims are in condition for allowance; accordingly, Applicants' respectfully request a Notice of Allowance. If the Examiner's next action is other than the allowance of the pending claims, the Examiner is requested to call Applicants' attorney at (925) 621-2113.

Respectfully submitted,



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